

Name _____

Measuring Mass in a Chemical Reaction
Lab 25.1

Hypotheses: Before conducting the experiment, answer each of the questions below based on your prior knowledge and previous experiences.

1. What do you think will happen when the effervescent tablet is added to the water?
2. Do you think this will be an example of a physical or a chemical change?
3. What do you think will happen to the mass of the tablet, water, and beaker before vs after they are combined?
4. What do you think will happen to the mass of the tablet, water, and closed bottle before vs after they are combined?

Data: Record all of the measurements and observations you make in the table below. Be sure to also calculate and record any changes in mass.

Conditions	Mass of Tablet, Container, and Water BEFORE they were Mixed (g)	Mass of Solution and Container AFTER Reaction is Complete (g)	Change in Mass (g)	Notes and Other Observations
Open Beaker				
Closed Bottle				
After Bottle was Opened	<i>Note: This mass will be the same as mass in closed bottle above</i>			

Analysis: Answer the questions below based on your data.

1. What evidence do you have that a chemical reaction took place when you added the tablet to the water?
2. What happened to the mass when the experiment was performed in an open beaker? Explain WHY you think this happened.
3. Why didn't you get the same result when you used the closed bottle?
4. What happened to the mass of the bottle, cap, and contents after the cap was removed? Explain WHY you think this happened.
5. Do you think the law of conservation of mass applies to chemical reactions?
6. Define the law of conservation of mass in your own words.